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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,751	02/25/2002	Yoshihisa Kamiya	44471/270726	2302

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EXAMINER

ELKASSABGI, HEBA

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 03/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/083,751

Applicant(s)

KAMIYA ET AL.

Examiner

Heba Elkassabgi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6 is/are allowed.
- 6) ☒ Claim(s) 3 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "first end, second end, end step, and end edges" must be shown or the features canceled from claim five. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The "first end, second end, end step and end edges" are assumed by the examiner to be located below as indicated by

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what the examiner perceive to be the "first end, second end, end edges, and end step".

It is advised by the examiner for the applicant to correct the drawings to show the claimed subject matter and to modify the specification to reflect the claimed subject matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to the examiner as to the meaning of "being ended close to the first end" in Claim 5, clarification is respectfully requested.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Kanno et al. (U.S. Patent 5204574).

Kanno et al. discloses in Figure #6 a plurality of commutator segments (10) that are arranged externally on the cylindrical surface of the commutator with insulating resin portion (11) having anchors (claws) (20) are fixed to the commutator segments (10); with undercuts (12) formed on the molded resin (conductive material) (11). Figure #8 further discloses anchors (internal claws, that act as anchors) (20A and 20B), extend the length of the commutator segments (10). Furthermore, in Figure #8 a groove (19A-B) are formed on an inner surface and the anchors (20A-B) projecting from the inner surface. Additionally, Kanno et al. discloses in Figure #15 a the grooves (17) and the anchors (20) being extended from a second end of the commutator segment to the end of the first end, in which an end step and an end edge are end at the first end.

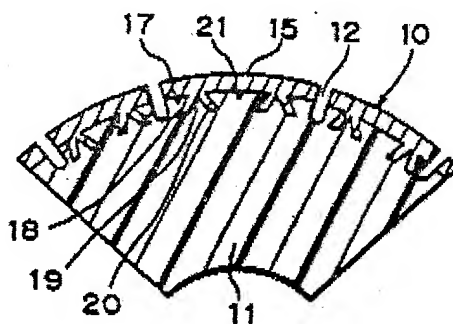
Fig. 6

Fig. 8

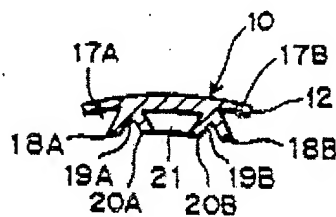


Fig. 24

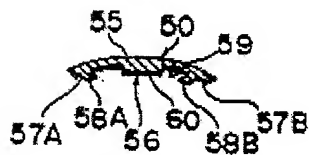


Fig. 15

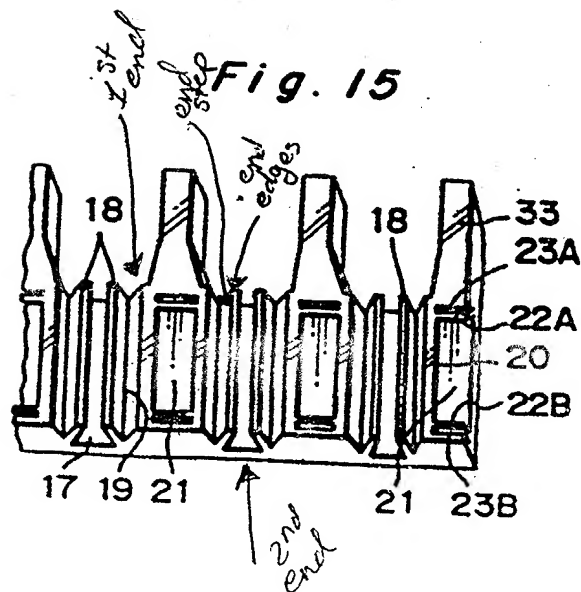
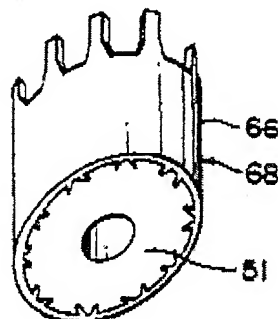


Fig. 37



Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

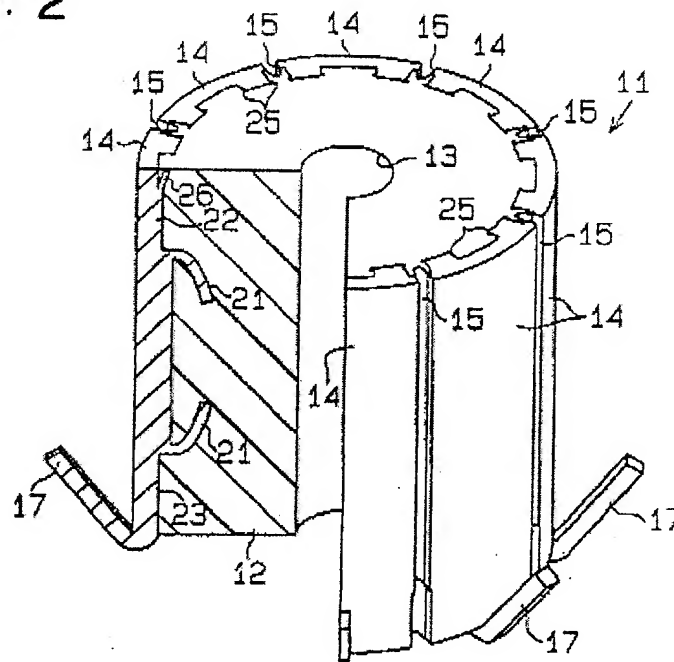
Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanno et al. (U.S. Patent 5204574) and in further view of Kageyama et al. (U.S. Patent 6369484).

Kanno et al. discloses in Figure #6 a plurality of commutator segments (10) that are arranged externally on the cylindrical surface of the commutator with insulating resin portion (11) having anchors (claws) (18A-B) are fixed to the commutator segments (10); with undercuts (12) formed on the molded resin (conductive material) (11). Figure #8

further discloses anchors (internal claws, that act as anchors) (18A-B), extend the length of the commutator segments (10). Furthermore, in Figure #8 a groove (19A-B) are formed on an inner surface and the anchors (20A-B) projecting from the inner surface.

Kageyama et al. illustrates in Figure # 2 hooks (claw) (17) having an inner hooks (anchors-inner claws) (21) bent inwardly and that the anchors is from a proximal end of the hooks which are embedded into the insulation body (12), for the purpose of holding of insulation body at the central portion of the commutator segments.

FIG. 2



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It would have been obvious to one skilled in the art to combine the invention of Kanno et al. with Kageyama et al. in order to better secure the insulation body at the central portion of the commutator segment.

Allowable Subject Matter

Claim 6 is allowed, because Prior Art does not disclose a pair of anchors being connected with each other at the end of the groove on the side near the hooks and slanted to the groove at the other end of the groove.

Response to Arguments

In regards to applicant's argument that Kanno et al. does not recite the amendment of Claim 5, the examiner respectfully disagrees. As stated above in the 102 reject of Claim 5 Kanno et al. discloses in Figure 15 the limitations of "the groove and the anchors being extended from a second end of the segment opposite to the first end and being ended close to the first end by an end step and end edges." Applicant does not disclose what the end edges and end steps are in the drawings or the specification and thus the examiner understands that the end edges and end steps are the ends of the anchors as understood from the wording of the claims. It is advised that the applicant amend the specification and drawings if the examiner is incorrect.

In regards to applicants argument of Claim 3 Kageyama et al. illustrates in Figure 2 that the second anchors are divided from into two hooks and the internal side of the hook is bent inward as stated in the limitation of the claim. Kageyama does disclose in figure 2 the second anchors projecting inward from a proximal end of the hooks. Kanno et al. discloses in the prior art figures 2-3 second anchors (5A and 5B) that are projecting inwardly from proximal ends of the hook (claw)(A), thus the structural combination of the second anchors and the anchors and the hooks would be obvious to one of ordinary skill in the art.

Fig. 2 (Prior Art)

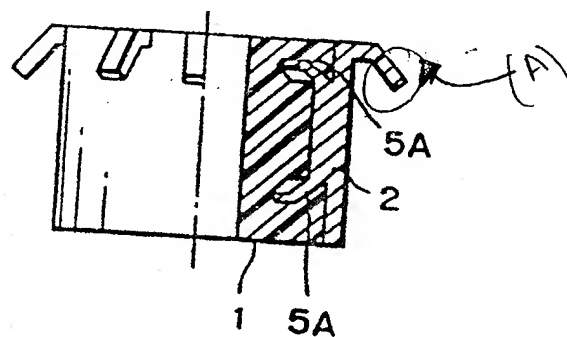
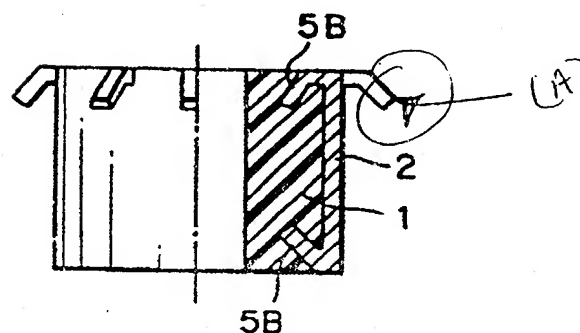


Fig. 3 (Prior Art)



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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heba Elkassabgi whose telephone number is (703) 305-2723. The examiner can normally be reached on M-Th (6:30-3:30), and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Heba Y. Elkassabgi
March 19, 2003


2600